

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of )  
KLAUS BOHNERT, et al. )  
Application No.: Unassigned ) Group Art Unit: Unassigned  
Filed: January 5, 2001 )  
For: FIBER OPTIC CURRENT SENSOR )  
Examiner: Unassigned  
S. Storaasli  
449-01

**PRELIMINARY AMENDMENT**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Prior to examination of the above-captioned patent application, kindly enter the following amendments.

**IN THE CLAIMS:**

Please replace Claims 1-7 as follows.

1. (Amended) A fiber optic current sensor having a coiled sensor fiber which encloses a current conductor (S), and at least one phase delay element adjoining the sensor fiber, characterized in that the at least one phase delay element has a phase delay with a temperature dependence which at least approximately compensates for a temperature dependence of a Verdet's constant (V) of the sensor fiber.

2. (Amended) The current sensor as claimed in claim 1, characterized in that the at least one phase delay element has a phase delay angle whose value deviates from a phase delay angle of an ideal phase delay element.